

Federal Fleet Compliance with EPACT and E.O. 13149

Fiscal Year 2005

This report summarizes the Federal Government's fiscal year (FY) 2005 performance in meeting the vehicle requirements of the Energy Policy Act (EPACT) of 1992 (Public Law 102-486), as amended by the Energy Conservation Reauthorization Act of 1998 (Public Law 105-388), and in meeting the goals of Executive Order (E.O.) 13149, "Greening the Government through Federal Fleet and Transportation Efficiency" (65 *Federal Register* 24607), which was signed in April 2000 (Exhibit 1). Additional requirements placed on Federal fleets by the Energy Policy Act of 2005 (Public Law 109-58), signed into law in August 2005, do not impact Federal fleets in FY 2005, but will be incorporated in subsequent reporting.

Exhibit 1. Federal Fleet Performance with EPACT and E.O. 13149, FY 2005

Authority/ Mandate	Performance Measure	Goal/Requirement	Federal Fleet Performance in FY 2005 ¹
EPACT	Alternative fuel vehicle (AFV) acquisitions	75 percent of the 18,594 covered light-duty vehicles (LDV) acquired in FY 2005 must be AFVs	Acquired 16,947 AFVs, earned 3,328 additional credits ² for total of 20,275 credits or 109 percent of covered acquisitions
E.O. 13149	Alternative fuel use in AFVs	By FY 2005, increase alternative fuel use in AFVs to a majority of the total fuel used in those vehicles	None of the 21 covered agencies used alternative fuel in AFVs for a majority of the fuel used in those vehicles ³
	Fuel economy of light-duty acquisitions	By FY 2005, increase fuel economy by 3 miles per gallon (mpg) compared to FY 1999 baseline	Nine of the 21 covered agencies increased their fuel economy by at least 3 mpg, in comparison to FY 1999
	Petroleum consumption	By FY 2005, reduce covered petroleum consumption by 20 percent compared to FY 1999 baseline ⁴ of 281,640,637 gasoline gallon equivalents (GGE)	Consumed 285,076,850 GGE of petroleum, an increase of 1.2 percent from the baseline

¹Individual agency performance detailed in Appendices A and B.

²Additional credits earned for the acquisition of dedicated light-, medium-, and heavy-duty AFVs and the use of biodiesel.

³One agency misreported a high percentage of alternative fuel use due to the inclusion of biodiesel use in the calculation, and erroneous data entry. Future reports will reflect more accurate data.

⁴Baseline adjusted in FY 2005 to account for unreported fuel and the addition of several agencies.

EPACT Compliance

For the third consecutive year, the overall Federal fleet exceeded its EPACT AFV acquisition requirement in FY 2005—with 15 of the 21 covered agencies meeting the requirement (Appendix A). As a result of AFV acquisitions and biodiesel fuel use, covered Federal agencies achieved a record compliance rate—34 percentage points higher than the 75 percent AFV acquisition requirement. In FY 2005, covered Federal agencies:

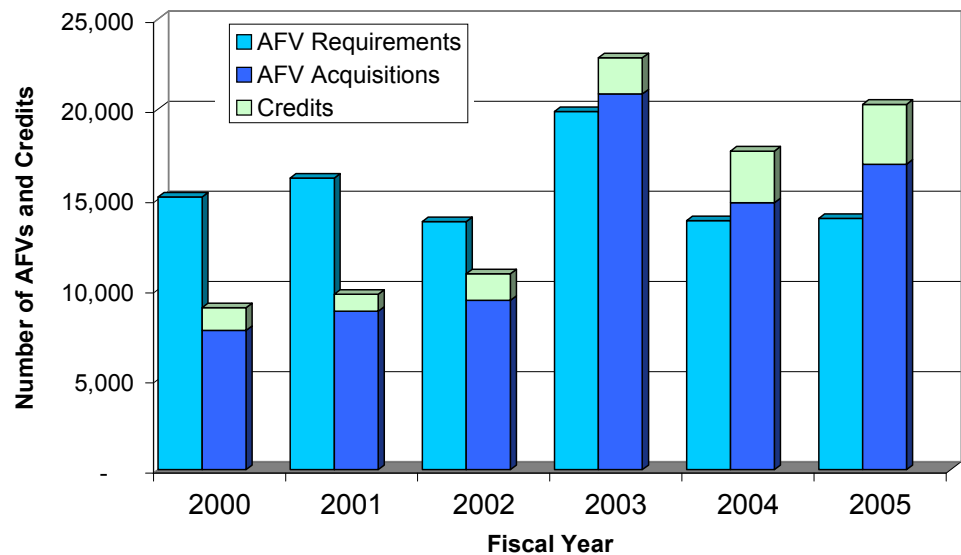
- Acquired 18,594 EPACT-covered LDVs. Of these, 16,947 were AFVs—3,001 more than the 75 percent compliance requirement of 13,946 AFVs.
- Received an additional 3,328 credits through the acquisition of dedicated AFVs and the use of biodiesel.
- Earned a total of 20,275 credits (vehicle acquisitions plus additional credits)—109 percent of covered acquisitions.

Exhibit 2. EPAct AFV Acquisitions, Credits and Requirements

Credits

Federal fleets earn one credit for every bi- or flexible-fuel AFV acquired. Additional credits are earned for every 450 gallons of neat biodiesel (B100) or 2,250 gallons of B20 (20 percent biodiesel and 80 percent petroleum diesel) used. Additional credits are also earned for AFVs that operate exclusively on alternative fuels.

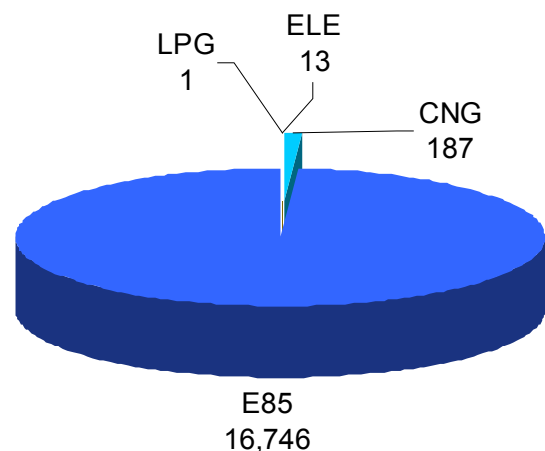
In FY 2005, covered Federal agencies earned 16,947 credits for AFV acquisitions, 3,226 credits for biodiesel use, and 102 additional credits for acquiring dedicated light-, medium-, and heavy-duty AFVs, for a total of 20,275 credits. As such, Federal AFV acquisitions alone accounted for 91 percent of all covered acquisitions—16 percentage points above the EPACT requirement (Exhibit 2).



Vehicles

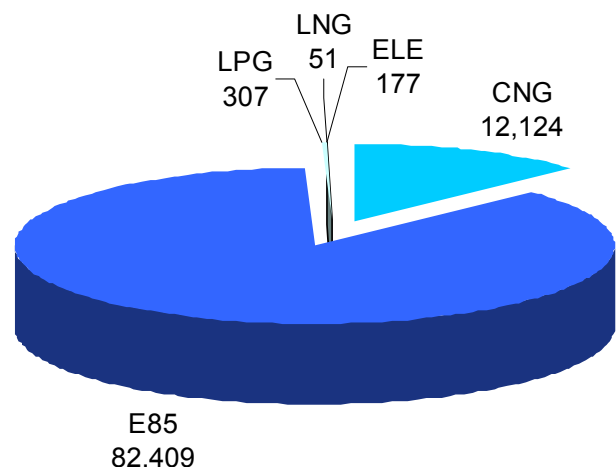
Flexible-fuel vehicles (FFV) that can run on E85 (85 percent ethanol, 15 percent gasoline) or gasoline were the AFVs of choice in FY 2005 (Exhibit 3). Of the 16,947 AFVs acquired in FY 2005, 16,746 (99 percent) were FFVs. Most (187) of the other AFVs acquired were compressed natural gas (CNG) vehicles.

Exhibit 3. Total FY 2005 AFV Acquisitions by Federal Agencies Covered by EPAct



FFVs operating on E85 comprise the majority (87 percent) of the AFVs in the overall Federal fleet (Exhibit 4), with CNG vehicles making up most of the balance (13 percent). As the availability of gaseous fuel [CNG and liquefied petroleum gas (LPG)] vehicle models continue to decrease, these vehicle types will become less prevalent in the Federal fleet. Liquefied natural gas (LNG), electric (ELE), and LPG vehicles combined account for less than 1 percent of the 95,068 AFVs in the 21 EPACT-covered agencies.

Exhibit 4. Total AFV Inventory of Federal Agencies Covered by EPAct



Exemptions

Of the 44,528 total light-duty vehicles (LDVs) acquired by covered Federal agencies in FY 2005, 25,934 vehicles (58 percent) were considered exempt from compliance with EPACT. Exemptions are granted for fleet size, geographic location or use outside a Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area (MSA/CMSA), and use for law enforcement.

In FY 2005, exemptions were granted as follows:

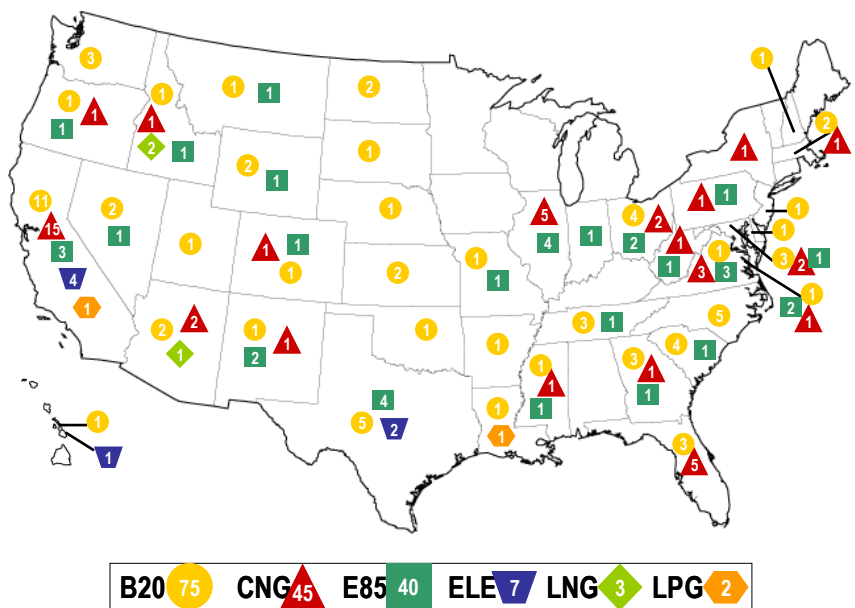
- Fleet Size (2,611)
- Geographic (1,296)
- Law Enforcement (8,335)
- Non-MSA/CMSA Operation/Fleet (2,870)
- Non-MSA/CMSA Operation/Vehicles (10,822)

E.O. 13149 Compliance

E.O. 13149 calls for each agency to reduce vehicular petroleum consumption by 20 percent by the end of FY 2005, in comparison with a base year of FY 1999, and specifies three approaches agencies should take to achieve this goal:

- Comply with EPACT's annual AFV acquisition requirements (as previously discussed).
- Use alternative fuels in AFVs for a majority of the fuel used in those vehicles.
- Increase the fuel economy of light-duty acquisitions (excluding AFVs) by 3 mpg by the end of FY 2005, as compared to FY 1999 baseline acquisitions.

Exhibit 5. Federal Agency Alternative Fuel Sites in the United States



The following sections discuss the overall level of compliance throughout the Federal fleet. Individual agency information is outlined in Appendix B.

Use Alternative Fuels in AFVs

In FY 2005, none of the 21 covered agencies used alternative fuel in AFVs for a majority of the fuel used in those vehicles. (One agency misreported a high percentage of alternative fuel use due to the inclusion of biodiesel use in the calculation, and erroneous data entry. Future reports will reflect more accurate data). One reason for the relatively low alternative fuel use rate is the lack of sufficient alternative fuel infrastructure. To remedy this, several agencies have invested in new alternative fuel stations at locations throughout the United States. The location of these new stations will be provided in the FY 2006 report and will be added to the existing list of Federal alternative fuel stations as shown in Exhibit 5.

Exhibit 6 compares fuel use by covered Federal agencies in FY 2005 and FY 2004. Alternative fuels comprise a growing portion of agencies' covered fuel use, representing 2.15 percent in FY 2005, up from 1.57 percent the year before. Also, alternative fuel use (primarily E85) increased 41 percent from FY 2004 to FY 2005. During this period,

Exhibit 6. Total Fuel Use of Federal Agencies Covered by E.O. 13149

Fuel Use	FY 2004 (GGE)	FY 2005 (GGE)	Change (%)
Alternative Fuel			
Biodiesel (B100)	1,305,194	1,624,069	24.4
CNG	1,156,211	1,244,588	7.6
E85	1,771,236	3,052,290	72.3
Electricity	3,369	4,973	47.6
LNG	90,940	101,772	11.9
LPG	107,847	229,241	112.6
Total Alternative Fuel Use	4,434,797	6,256,933	41.1
Petroleum			
Total Covered Petroleum Use	277,911,017	285,076,850	2.6
Total Covered Fuel Use	282,345,814	291,333,783	3.2
<i>Alternative Fuel Use as a Percentage of Total Fuel Use</i>	1.57	2.15	36.9

the total covered fuel use of Federal agencies increased 3.2 percent and covered petroleum consumption increased by 2.6 percent.

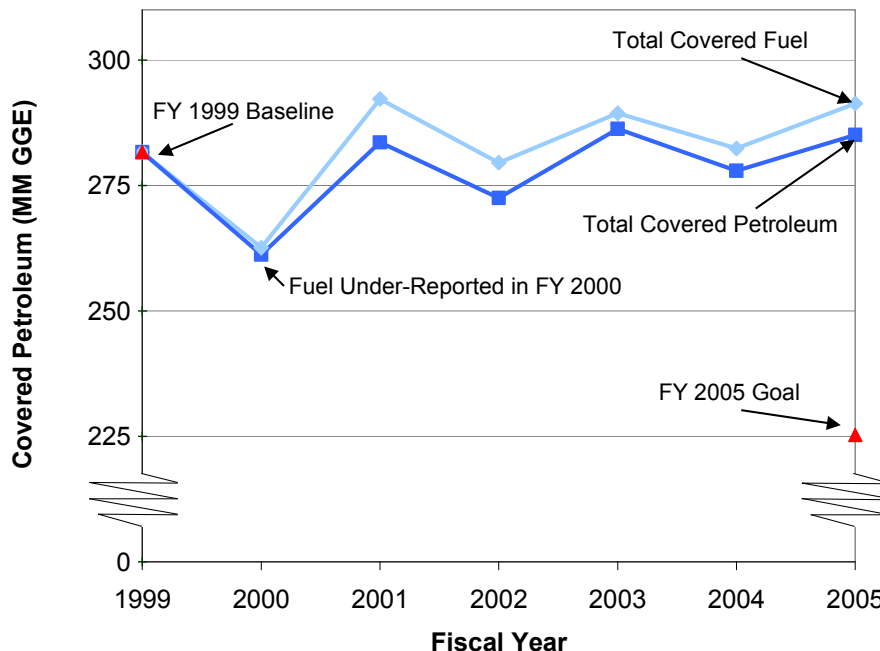
Improve Fuel Economy

Toward the 20 percent petroleum reduction goal, E.O. 13149 calls for each agency to increase the fuel economy of its LDV acquisitions (excluding AFVs). In FY 2005, nine agencies increased the average fuel economy of these vehicles by at least 3 mpg in comparison to FY 1999.

Petroleum Consumption Progress Report

In FY 2005, covered Federal agencies consumed 6,256,933 GGE (Appendices B and C) of alternative fuels, thereby reducing gasoline and diesel fuel consumption in Federal vehicles. These agencies reported 285,076,850 GGE of covered petroleum consumed in FY 2005, up slightly (1.2 percent) from 281,640,637 GGE reported for FY 1999. Although covered Federal agencies have not approached the 20 percent reduction goal set forth in E.O. 13149, they have been successful in displacing petroleum, as illustrated in Exhibit 7.

Exhibit 7. Vehicular Petroleum Consumption of Federal Agencies Covered by E.O. 13149



Without E.O. 13149, the transportation petroleum consumption of covered Federal agencies would have grown to 291 million GGE in FY 2005. However, due to alternative fuel use, covered petroleum consumption in FY 2005 was nearly flat when compared with FY 1999 consumption levels. As evident in Exhibit 7, the petroleum consumption data reported by covered Federal agencies is inconsistent. The U.S. Department of Energy (DOE) is working with the Federal fleets to improve the quality of their data.

The Office of Management and Budget (OMB) developed scorecards to promote agency compliance. The scorecards will be issued semi-annually in January and July and will assess data quality and progress made toward meeting the requirements of EPACT and E.O. 13149. Each agency scorecard includes specific activities that agencies should undertake to improve compliance. Progress on these activities is initially assessed by DOE and ultimately approved by OMB which then distributes scorecards to responsible senior agency officials.

Summary and Conclusions

In FY 2005, the overall Federal fleet exceeded its EPACT AFV acquisition requirements. Covered agencies acquired 16,947 AFVs and earned 3,328 credits for a total of 20,275 credits—109 percent of covered acquisitions. This equates to a compliance rate of 145 percent of the required acquisitions.

Toward compliance with E.O. 13149, covered Federal agencies consumed 6.26 million GGE of alternative fuels. Nine of the 21 covered Federal agencies increased the average fleet fuel economy of their LDV acquisitions by at least 3 mpg, but none of the agencies credibly demonstrated using alternative fuels in their AFVs a majority of the time. The Federal fleet was successful in displacing petroleum consumption, but is not close to achieving the 20 percent reduction required by E.O. 13149.

DOE is aware that the quality of agency data is variable, particularly with respect to fuel consumption. DOE will continue to work with agencies to improve this data.

Appendices

Appendix A

EPACT Compliance, FY 2005								
Agency	Covered Acquisitions ¹ (#)	EPACT Credits				AFVs as % of Covered Acquisitions	Met Requirement ⁴	Total AFV Inventory ⁵
		Number of AFVs	Add'l AFV Credits ²	Biodiesel Credits ²	Total Credits ³			
Agriculture	664	654	2	11	667	100	Yes	3,328
Commerce	131	120	0	0	120	92	Yes	403
Defense (Total)	10,020	11,223	42	2,276	13,541	135	Yes	38,836
Energy	725	605	3	204	812	112	Yes	3,885
Health and Human Services	209	186	0	0	186	89	Yes	664
Homeland Security	949	859	0	0	859	91	Yes	2,078
Housing and Urban Development	98	25	0	0	25	26	No	214
Interior	443	263	24	166	453	102	Yes	1,362
Justice	193	139	10	5	154	80	Yes	903
Labor	508	92	3	0	95	19	No	302
State	43	63	10	0	73	170	Yes	210
Transportation	942	291	0	0	291	31	No	1,157
Treasury	130	21	0	0	21	16	No	193
Veteran Affairs	490	328	3	10	341	70	No	1,413
Court Services and Offender Supervision	0	3	0	0	3	0	Yes	0
Environmental Protection Agency	114	96	0	0	96	84	Yes	402
General Services Administration	237	201	0	0	201	85	Yes	768
National Aeronautics and Space Administration	324	362	4	63	429	132	Yes	1,169
Smithsonian	42	0	0	0	0	0	No	17
Social Security	30	29	1	0	30	100	Yes	146
Postal Service	2,302	1,387	0	453	1,840	80	Yes	37,618
Federal-wide TOTAL	18,594	16,947	102	3,226²	20,275²	109	Yes	95,068

¹Excludes exempt vehicles. EPACT allows exclusions based on geographic location, size of fleet, non-MSA operation, and use in law enforcement, emergency, and national defense vehicles.

²Total may not represent sum of column due to rounding or because some agencies have reached the 50 percent biodiesel cap.

³Includes credits for dedicated light-, medium-, and heavy-duty vehicles, and biodiesel usage as allocated by E.O. 13149.

⁴EPACT requires that AFVs represent 75 percent of all covered light-duty vehicle acquisitions.

⁵Excluding credits.

Appendix B

Executive Order 13149 Compliance, FY 2005								
Agency	Petroleum Consumption			Alternative Fuel Use		Fuel Economy		
	FY 1999 Covered Petroleum Consumption Baseline (GGE) ¹	FY 2005 Covered Petroleum Consumption (GGE) ¹	Change in Fuel Consumption (%)	FY 2005 Alt Fuel Consumption ² (GGE)	Alt Fuel Use in AFVs (%)	FY 1999 Fuel Economy Baseline ³ (mpg)	FY 2005 Fuel Economy (mpg)	Change in Fuel Economy (mpg)
Agriculture	21,069,108	18,463,947	-12.4	196,642	11.76	17	21.8	4.8
Commerce	1,132,791	1,210,701	6.9	1,085	0.62	17	18	1
Defense (Total)	79,353,335	84,738,128	6.8	2,316,915	5.08	18.6	21.2	2.6
Energy	7,542,469	7,389,881	-2	623,780	25.47	17	20.5	3.5
Health and Human Services	2,247,820	2,042,181	-9.1	25,635	6.27	19.2	22.4	3.2
Homeland Security	3,475,284	3,797,688	9.3	222,634	8.14	19.5	20	0.5
Housing and Urban Development	210,122	197,574	-6	55	0.1	23	34.3	11.3
Interior	21,221,692	18,716,255	-11.8	1,299,992	133.62	16	23.6	7.6
Justice	842,256	599,437	-28.8	111,788	14.6	19	22.9	3.9
Labor	3,027,793	3,316,434	9.5	54,171	3.24	21	24	3
State	293,729	278,837	-5.1	9,673	7.77	15.7	17.9	2.2
Transportation	5,075,672	3,659,780	-27.9	68,244	10.66	24	24.5	0.5
Treasury	870,705	483,983	-44.4	39,791	30.41	18	20.9	2.9
Veteran Affairs	6,277,134	8,514,877	35.6	36,583	2.42	18	19.9	1.9
Court Services and Offender Supervision	18,948	18,948	0	0	0	24	24	0
Environmental Protection Agency	622,645	513,128	-17.6	44,590	15.11	17	21.5	4.5
General Services Administration	677,681	573,123	-15.4	534	0.15	18	17.6	-0.4
National Aeronautics and Space Administration	1,521,959	1,275,831	-16.2	148,433	22.81	18	21.5	3.5
Smithsonian	238,170	238,170	0	4,150	48.82	18.9	18.9	0
Social Security	374,199	374,199	0	2,359	10.71	18.2	18.2	0
Postal Service	125,547,125	128,673,748	2.5	1,049,879	5.58	18.5	21.2	2.7
TOTAL	281,640,637	285,076,850	1.2	6,256,933		ND⁵	21.4⁴	

¹In E.O. 13149, "covered" vehicles are all on-road vehicles that are not law enforcement, emergency, and military tactical.

²Combination of all types of alternative fuels (natural gas, E-85, electricity, biodiesel, and LPG).

³Covered LDV acquisitions excluding AFVs.

⁴Weighted average of all covered LDV acquisitions excluding AFVs.

⁵No data. Could not calculate baseline because of lack of complete data.

Appendix C

Alternative Fuel Consumption (GGE), FY 2005							
Agency	CNG	LPG	LNG	E85	ELE	Biodiesel (B100)	Total
Agriculture	8,756	2,664	0	179,625	0	5,597	196,642
Commerce	19	0	0	1,066	0	0	1,085
Defense (Total)	626,379	1,449	0	539,828	1,924	1,147,335	2,316,915
Energy	69,548	12,468	37,147	401,895	417	102,305	623,780
Health and Human Services	5,316	0	0	20,054	0	265	25,635
Homeland Security	1,737	0	0	220,897	0	0	222,634
Housing and Urban Development	0	0	0	55	0	0	55
Interior	135,397	187,061	64,625	812,222	1,006	99,681	1,299,992
Justice	78,906	0	0	29,981	0	2,901	111,788
Labor	28,437	0	0	25,734	0	0	54,171
State	5,915	0	0	3,758	0	0	9,673
Transportation	4,230	11	0	64,003	0	0	68,244
Treasury	0	0	0	39,791	0	0	39,791
Veteran Affairs	10,782	0	0	20,403	33	5,365	36,583
Court Services and Offender Supervision	0	0	0	0	0	0	0
Environmental Protection Agency	17,970	0	0	26,494	0	126	44,590
General Services Administration	42	0	0	492	0	0	534
National Aeronautics and Space Administration	24,260	8,969	0	83,237	0	31,967	148,433
Smithsonian	4,150	0	0	0	0	0	4,150
Social Security	1,792	0	0	567	0	0	2,359
Postal Service	220,952	16,619	0	582,188	1,593	228,527	1,049,879
TOTAL	1,244,588	229,241	101,772	3,052,290	4,973	1,624,069	6,256,933

Appendix D

List of Acronyms

Acronym	Phrase
AFV	Alternative Fuel Vehicle
B100	Biodiesel (100 percent, neat)
B20	Biodiesel (20 percent biodiesel, 80 percent petroleum diesel)
CNG	Compressed Natural Gas
DOE	U.S. Department of Energy
E85	Ethanol (85 percent ethanol, 15 percent petroleum)
ELE	Electric
E.O.	Executive Order
EPACT	Energy Policy Act
FFV	Flexible Fuel Vehicle
FR	Federal Register
FY	Fiscal Year
GGE	Gasoline Gallon Equivalent
LDV	Light-Duty Vehicle
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas (Propane)
MPG	Miles Per Gallon
MSA/CMSA	Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area
OMB	Office of Management and Budget